

### Abstract of the Disclosure

The invention relates to a transponder which is mounted in a tire. The transponder includes at least a transponder chip and a transponder antenna and is embedded in a substrate. The substrate is connected to an inner side of the tire by a connecting structure. In order to provide a transponder with the longest possible service life, the substrate is decoupled from the inner side of the tire via a connecting structure in the form of a soft or gliding support in such a manner that no or only minimum mechanical stresses are transmitted to the substrate. The connecting structure is arranged between the substrate and the inner side of the tire.